

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

Claims 1-6. (Canceled)

Claim 7-15. (Canceled)

16. (Currently Amended) A process for the production of arachidonic acid (ARA), the process comprising culturing a micro-organism which is *Mortierella* in a culture medium inside a fermentation vessel, whereby at a stage which precedes the end of fermentation, [[the]]a carbon source is added at a rate below the rate of consumption of the carbon source by the micro-organisms, such that arachidonic acid is produced.

17. (Previously Presented) A process according to claim 16, wherein in said stage the micro-organisms are subjected to conditions whereby they metabolise, or consume, one or more fat(s) or lipids(s) in preference to arachidonic acid (ARA).

18. (Previously Presented) A process according to claim 16, wherein in said stage the carbon source is added at a rate of $\leq 0.30\text{M carbon/kg medium per hour}$.

19. (Previously Presented) A process according to claim 18, wherein in said stage the carbon source is added at a rate of at least $0.01\text{ M carbon/kg medium/hour}$.

20. (Previously Presented) A process according to claim 16, wherein the concentration of the carbon source in that stage is from 0.5 to 4 g/kg medium .

21. (Previously Presented) A process according to claim 16, wherein the carbon source is glucose and wherein the rate of addition of glucose is less than 1.0 g glucose/kg medium per hour.

22. (Previously Presented) A process according to claim 16, wherein:

the fermentation is carried out at a temperature $\geq 22^{\circ}\text{C}$ and $\leq 30^{\circ}\text{C}$.

Claim 23. (Canceled)

24. (Currently Amended) A process according to claim [[23]]16, wherein the micro-organism is *Mortierella alpina*.

25. (Previously Presented) A process according to claim 16, wherein the process is a submerged fermentation process.

26. (Previously Presented) A process according to claim 16, wherein the ARA is present in a microbial oil.

27. (Previously Presented) A process according to claim 26, wherein the microbial oil comprises at least 35% ARA.

28. (Previously Presented) A process according to claim 27, wherein the microbial oil comprises at least 40% ARA.

29. (Previously Presented) A process according to claim 16, wherein the microbial oil comprises at least 50% arachidonic acid (ARA).

30. (Previously Presented) A process according to claims 26, wherein the microbial oil has a triglyceride content of at least 90%.

31. (Previously Presented) A process according to claims 27, wherein the microbial oil has a triglyceride content of at least 90%.

32. (Previously Presented) A process according to claims 28, wherein the microbial oil has a triglyceride content of at least 90%.

33. (Previously Presented) A process according to claims 29, wherein the microbial oil has a triglyceride content of at least 90%.

34. (Previously Presented) A process according to claim 16, wherein the rate of addition of the carbon source is 30-70% of the rate of consumption by the micro-organism.

35. (new) A process according to claim 16, whereby the carbon source is rate limiting on the growth of the micro-organism.

36. (new) A process for the production of arachidonic acid (ARA), the process comprising culturing a micro-organism which is *Mortierella* in a culture medium inside a fermentation vessel, whereby in the last stage which begins at 10 hours from the end of fermentation, a carbon source is added at a rate below the rate of consumption of the carbon source by the micro-organisms, such that arachidonic acid is produced.

37. (new) A process according to claim 36, wherein in said stage the micro-organisms are subjected to conditions whereby they metabolise, or consume, one or more fat(s) or lipids(s) in preference to arachidonic acid (ARA).

38. (new) A process according to claim 36, wherein in said stage the carbon source is added at a rate of ≤ 0.30 M carbon/kg medium per hour.

39. (new) A process according to claim 38, wherein in said stage the carbon source is added at a rate of at least 0.01 M carbon/kg medium/hour.

40. (new) A process according to claim 36, wherein the concentration of the carbon source in that stage is from 0.5 to 4 g/kg medium.

41. (new) A process according to claim 36, wherein the carbon source is glucose and wherein the rate of addition of glucose is less than 1.0 g glucose/kg medium per hour.

42. (new) A process according to claim 36, wherein:

the fermentation is carried out at a temperature $\geq 22^{\circ}\text{C}$ and $\leq 30^{\circ}\text{C}$.

43. (new) A process according to claim 36, wherein the micro-organism is *Mortierella alpina*.

44. (new) A process according to claim 36, wherein the process is a submerged fermentation process.

45. (new) A process according to claim 36, wherein the ARA is present in a microbial oil.

46. (new) A process according to claim 45, wherein the microbial oil comprises at least 35% ARA.

47. (new) A process according to claim 46, wherein the microbial oil comprises at least 40% ARA.

48. (new) A process according to claim 36, wherein the microbial oil comprises at least 50% arachidonic acid (ARA).

49. (new) A process according to claims 45, wherein the microbial oil has a triglyceride content of at least 90%.

50. (new) A process according to claims 46, wherein the microbial oil has a triglyceride content of at least 90%.

51. (new) A process according to claims 47, wherein the microbial oil has a triglyceride content of at least 90%.

52. (new) A process according to claims 48, wherein the microbial oil has a triglyceride content of at least 90%.

53. (new) A process according to claim 36, wherein the rate of addition of the carbon source is 30-70% of the rate of consumption by the micro-organism.

54. (new) A process according to claim 36, whereby the carbon source is rate limiting on the growth of the micro-organism.